



**ROCK CREEK NATURE CENTER
AND PLANETARIUM
Washington, DC 20015
(202) 895-6070**

Dear Teacher,

Thank you for scheduling a curriculum based planetarium program, especially designed for your students. We hope this program becomes an integral part of your class's learning experience. We have found that students gain a greater appreciation for the natural world by coming to Rock Creek Park, our "outdoor classroom".

The program will take place mostly inside our planetarium, a round room with a dome - shaped ceiling. Inside, students will watch as an imaginary sun sets and the room darkens. Stars, moon and distant planets will become visible, as though it were night. In fast motion, the students will see tonight's entire night sky, until it yields to daylight. Because most of this program takes place in the dark, please instruct students to stay seated and remain quiet. Questions will be answered when the lights are turned on again at the end of the presentation.

Enclosures include background information on the program, pre and post- trip activities.

If you have any questions or comments, please feel free to contact us at (202) 895-6070.

We look forward to your visit.

Sincerely,

Rock Creek Park



Rock Creek Park Nature Center and Planetarium

Searching the Solar System

Observe the movements of the Earth, the moon, other planets, and stars in relation to the Earth and sun. Watch the sun set and reveal a star covered sky. See the night sky as though you stayed up all night long during this planetarium program.

Topics: Basic Astronomy, Solar System

Audience: grades 4 - 6

Theme: The more we observe and come to understand our solar system and the universe the more we appreciate how rare and special our planet Earth is.

BACKGROUND INFORMATION

Unfortunately, many inter-city children do not have the opportunity to see the full night sky. Marred by light pollution, coming from building and street lights, only a few stars can be seen.

The Rock Creek Park Planetarium enables us to display the night sky on a dome-shaped ceiling either with light pollution or free of it. The projector also controls time, so it can display stars throughout the night, slowing time down or speeding it up.

Where: Rock Creek Park Nature Center Planetarium

Length: 1 hour

Attachments: District of Columbia Public School Science Standards, grades 4-6
Astro Match
Solar Scramble

Students per group: maximum of 70

Chaperones per group: 5 recommended

OBJECTIVES

By the end of the program, students will be able to;

1. Describe two ways the Earth moves in space
2. Identify at least three celestial objects in the night sky
3. Visually layout of the solar system



Solar System Pre and Post - visit Activities

Please conduct a class preparatory lesson prior to attending the Solar System program at Rock Creek Park Planetarium. The pre - trip activities may be used to introduce important astronomy related concepts. The post - trip activities are designed to reinforce the program content by reviewing some of what the students learned while adding components of mathematics, language skills, art or critical issues.

Pre - visit:

1. Using a copy of the star chart, ask each student to connect the stars to create pictures.
2. With the students' help, keep a record of what the moon looks like each night for at least a week, but preferably more than a month.
3. Ask each student to draw the night sky from his or her bedroom window.
4. Divide the class into groups of three or four. Assign each group the task of researching one of the planets and presenting their findings in the class.

Post - visit:

1. Pass out copies of star charts and allow the children to connect the dots and recall some of the constellations presented in the program, or to create their own. Some children also enjoy creating make believe stories to go along with their personal constellations.
2. Astro Match from Ranger Rick (see attached)
3. Solar Scramble from Ranger Rick (see attached)
4. Allow each student to individually think about and explain why a clear night sky is important to them. Compile their answers and write to congress or the president to voice your opinion.
5. Ask each student to look around their neighborhood and try to think of ways to lessen light pollution.
6. Have the students, either individually, in small groups, or as a class, create a model of the solar system using less than \$10 worth of supplies.